

[4910-13-P]

### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2009-0951; Directorate Identifier 2007-SW-52-AD;

Amendment 39-17437; AD 2013-08-19]

**RIN 2120-AA64** 

**Airworthiness Directives; Eurocopter France Helicopters** 

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Eurocopter France (Eurocopter) Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. This AD requires visual and dye penetrant inspections for cracks in the rear roller support shaft (shaft) and rear fitting (fitting) of the sliding door, and replacing the shaft or fitting if there is a crack. This AD's actions are prompted by reports of cracks in the shaft and the fitting and are intended to prevent the loss of the sliding door, which could come into contact with the rotor system, leading to damage to the helicopter and loss of helicopter control.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <a href="http://www.eurocopter.com/techpub">http://www.eurocopter.com/techpub</a>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd.,

Room 663, Fort Worth, Texas 76137.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <a href="http://www.regulations.gov">http://www.regulations.gov</a> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email <a href="mailto:gary.b.roach@faa.gov">gary.b.roach@faa.gov</a>.

### SUPPLEMENTARY INFORMATION:

### **Discussion**

On October 22, 2009, at 74 FR 54501, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Eurocopter Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters,

with sliding door pre-modification (MOD) 073298 or pre-MOD 073308, installed. The NPRM proposed to require visual and dye penetrant inspections of the shaft and fitting. If a crack exists in the shaft or fitting, the NPRM proposed replacing the cracked parts with airworthy parts. The proposed requirements were intended to prevent the loss of the sliding door, which could come into contact with the rotor system and lead to damage to the helicopter and loss of helicopter control.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2007-0236, dated August 31, 2007, to correct an unsafe condition for specified Eurocopter model helicopters. EASA issued AD 2006-0251 and its revisions following a case of total failure and a case of a crack discovered on the support shaft of the sliding door rear roller.

Metallurgical and metallographic analyses revealed a nonconformity concerning the heat treatment of the material. Since then, other cases of cracks and failures of the roller support shaft rear attach fitting had been reported. EASA AD No. 2007-0236 supersedes EASA AD No. 2006-0251R2 but retains the requirements for repetitive inspections until replacement of current parts with improved parts. EASA AD No. 2007-0236 also prohibits installation of another roller support fitting part number (P/N) 350A25-1270-22 on any AS350 or AS355 helicopter.

### **Comments**

After our NPRM (74 FR 54501, October 22, 2009) was published, we received comments from one commenter.

### Request

One commenter requested that our AD apply to only pre-modified aircraft as stated in the applicability paragraph. We agree.

The commenter also requested a paragraph on terminating action once an aircraft is "modified to a post-mod status" to avoid confusing an owner/operator. We disagree with this request. If an aircraft becomes modified according to modifications 073298 and 073308, the AD is clear that the applicability paragraph no longer applies.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed, except we have revised the estimated costs of complying with this AD to reflect labor costs of \$85 per hour instead of \$80 per hour.

### Differences Between this AD and the EASA AD

This AD differs from EASA AD No. 2007-0236 as follows:

- We use the word "inspect" to describe the actions required by a mechanic. EASA uses the word "check," which is how we describe the actions we allow a pilot to complete.
  - We do not require an operator to tell the manufacturer if a crack is found in the shaft.
- We are not including the Model AS 350 BB, because that model is not type certificated in the U.S. We are including Models AS350C and AS350D1 helicopters.

## **Related Service Information**

On July 18, 2006, Eurocopter issued Alert Service Bulletin (ASB) No. 52.00.30 for modifying the AS350 series helicopters and ASB No. 52.00.23 for modifying the AS355 series

helicopters. These ASBs contained modifications 073298 and 073308. The following day, Eurocopter issued ASB No. 05.00.45 for the AS355 model helicopters and ASB No. 05.00.47 for the AS350 helicopters. On June 29, 2007, Eurocopter issued Revision 1 to ASB No. 52.00.30 for the AS350 model helicopters and ASB No. 52.00.23 for the AS355 model helicopters to modify the sliding door medium roller pin and the fitting.

# **Costs of Compliance**

We estimate that this AD will affect 725 helicopters of U.S. Registry and that labor costs average \$85 a work-hour. Based on these estimates, we expect the following costs:

Inspecting and modifying the sliding doors will require about 4 work-hours for a labor cost of \$340. Parts will cost about \$7,000 for a total cost of \$7,340 per helicopter, and \$5,321,500 for the U.S. fleet.

# **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

**Regulatory Findings** 

This AD will not have federalism implications under Executive Order 13132. This AD

will not have a substantial direct effect on the States, on the relationship between the national

government and the States, or on the distribution of power and responsibilities among the various

levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866;

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures

(44 FR 11034, February 26, 1979);

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a

regulatory distinction; and

(4) Will not have a significant economic impact, positive or negative, on a substantial

number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and

placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment** 

Accordingly, under the authority delegated to me by the Administrator, the FAA amends

14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

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# § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD): 2013-08-19 **EUROCOPTER FRANCE HELICOPTERS:** Amendment 39-17437; Docket No. FAA-2009-0951; Directorate Identifier 2007-SW-52-AD.

# (a) Applicability.

This AD applies to Eurocopter France (Eurocopter) Model AS350B, BA, B1, B2, B3, C, D, D1, AS355E, F, F1, F2, and N helicopters, with sliding door pre-modification (MOD) 073298 or pre-MOD 073308, installed, certificated in any category.

# (b) Unsafe Condition.

This AD defines the unsafe condition as a crack in the rear roller support shaft (shaft) or the rear fitting (fitting) of the sliding door. This condition could result in loss of the sliding door, which could come into contact with the rotor system, leading to damage to the helicopter and loss of helicopter control.

## (c) Effective Date.

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

# (d) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless accomplished previously.

## (e) Required Actions.

(1) For a sliding door with less than 90 hours time-in-service (TIS), on or before accumulating a total of 110 hours TIS, conduct the visual and dye penetrant inspections of the shaft and the fitting of the sliding door for a crack by reference to Figure 1 and by following the

Operational Procedure, paragraph 2.B.1 and 2.B.2, of Eurocopter Alert Service Bulletin (ASB) No. 05.00.47 dated July 19, 2006, for the Model AS350 helicopters (ASB 05.00.47) or ASB No. 05.00.45 dated July 19, 2006, for the Model AS355 helicopters (ASB 05.00.45), except you are not required to contact the manufacturer.

- (i) If no crack is found in the shaft or fitting, reinstall the shaft on the fitting, fit the spring pins, and plug the pin holes by following the Operational Procedure, paragraph 2.B.2. of ASB 05.00.47 or 05.00.45, whichever is appropriate for your model helicopter.
- (ii) If you find a crack in the fitting, replace the fitting with an airworthy fitting before further flight.
- (iii) If you find a crack in the shaft, replace the shaft with an airworthy shaft before further flight by reference to Figure 1 and by following paragraph 2.B.3. of ASB 05.00.47 or 05.00.45, whichever is appropriate for your model helicopter.
- (2) For a sliding door with 90 or more hours TIS, within the next 20 hours TIS, and thereafter at intervals not to exceed 110 hours TIS, conduct the visual and dye penetrant inspections of the shaft and the fitting of the sliding door for a crack by reference to Figure 1 and by following the Operational Procedure, paragraph 2.B.1 and 2.B.2, of ASB 05.00.47 or ASB 05.00.45, whichever is appropriate for your model helicopter, except you are not required to contact the manufacturer.
- (i) If no crack is found in the shaft and fitting, reinstall the shaft or fitting, fit the spring pins, and plug the pin holes by following the Operational Procedure, paragraph 2.B.2. of ASB 05.00.47 or 05.00.45, whichever is appropriate for your model helicopter.
- (ii) If you find a crack in the fitting, replace the fitting with an airworthy fitting before further flight.

- (iii) If you find a crack in the shaft, replace the shaft with an airworthy shaft before further flight by reference to Figure 1 and by following paragraph 2.B.3. of ASB 05.00.47 or 05.45, whichever is appropriate for your model helicopter.
- (3) After the effective date of this AD, do not install any of the following parts on any helicopter:
- (i) Left-hand sliding door, part number (P/N) 350A25-0030-00XX, 350A25-0120-00XX, and 350AMR-0227-0052;
- (ii) Right-hand sliding door, P/N 350A25-0030-01XX, 350A25-0120-01XX, 350A25-0120-01XX, 350A25-0120-03XX, and 350AMR-0227-0051;
  - (iii) Rail roller pin, P/N 350A25-1275-20; and
  - (iv) Cast roller support fittings, P/N 350A25-1270-20 and P/N 350A25-1270-22.
  - (f) Alternative Methods of Compliance (AMOCs).
- (1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.
- (2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

# (g) Additional Information.

The subject of this AD is addressed in European Aviation Safety Agency AD No. 2007-0236, dated August 31, 2007.

## (h) Subject.

Joint Aircraft Service Component (JASC) Code: 5344, Fuselage Door Hinges.

- (i) Material Incorporated by Reference.
- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise:
- (i) Eurocopter France Alert Service Bulletin No. 05.00.47, Revision 0, dated July 19, 2006.
- (ii) Eurocopter France Alert Service Bulletin No. 05.00.45, Revision 0, dated July 19, 2006.
- (3) For Eurocopter France service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <a href="http://www.eurocopter.com/techpub">http://www.eurocopter.com/techpub</a>.
- (4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <a href="http://www.archives.gov/federal-register/cfr/ibr-locations.html">http://www.archives.gov/federal-register/cfr/ibr-locations.html</a>.

Issued in Fort Worth, Texas, on April 12, 2013.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate, Aircraft Certification Service.

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